



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY

Question Paper

B.Sc. Honours Examinations 2020

(Under CBCS Pattern)

Semester - V

Subject: BOTANY

Paper : C 11-T & C 11-P

Reproductive Biology of Angiosperms

Full Marks : 60 (Theory : 40 + Practical : 20)

Time : 3 Hours

Candidates are required to give their answer in their own words as far as practicable.

The figures in the margin indicate full marks.

C 11-T [Theory]

Answer **any two** of the following:

2x20=40

1. a. What is MGU?
- b. Write a short note on GIS.
- c. Emphasize the significance of pollination.
- d. Write a brief note on organization and ultrastructure of mature embryo sac. 3+7+5+5
2. a. What is *in vitro* fertilization?
- b. State the importance of parasexual hybridization.

- c. "Flower is a modified determinate shoot"- justify the statement.
- d. What is the difference between stigma and style? 3+4+9+4
3. a. Define pollinia
- b. Write one pollen wall protein.
- c. What is double fertilization?
- d. Write the genetic and molecular aspects of flower development. 3+2+5+10
4. a. Define microgametogenesis.
- b. Write the basic difference between intra-ovarian and in vitro pollination.
- c. State the cause and applications of polyembryony and apomixis. 3+8+9

C 11-P [Practical]

Answer *any one* of the following:

1x20=20

1. a. Draw and label the different types of ovule with suitable diagram.
- b. Draw and label the anther wall structure. 10+10
2. a. Draw and label the different types of endosperm development.
- b. Mention the identifying characters of MMC, spore tetrads, uninucleate, bicelled and dehisced anther stages. 10+10
3. a. Describe the process for Pollen viability test using TTC.
- b. Describe the process for Intra-ovarian pollination. 10+10
